

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 302921WO/KCS/DG	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/IB2004/000546	International filing date (day/month/year) 19/02/2004	(Earliest) Priority Date (day/month/year) 19/02/2003
Applicant NOKIA CORPORATION		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 8 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box II).

3. ☒ Unity of invention is lacking (see Box III).

**4. With regard to the title,**

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

ROUTING MESSAGES VIA AN IMS SYSTEM

**5. With regard to the abstract,**

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

**6. With regards to the drawings,**

- a. the figure of the drawings to be published with the abstract is Figure No. 2a

☐ as suggested by the applicant.

☒ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

# INTERNATIONAL SEARCH REPORT

national application No.

PCT/IB2004/000546

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

Thus invention relates to a method of routing for a message via an IMS system. A message is received at an I-CSCF. Address information is obtained for one of an application server, server or gateway for which said message is intended. The message is sent to said application server, server or gateway in accordance with said address information.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB2004/000546

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 H04L29/06

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04L H04Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/147845 A1 (PLATA-ANDRES ISABEL ET AL.) 10 October 2002 (2002-10-10)  figures 1,2 paragraphs '0031! - '0044! paragraphs '0062! - '0065!	1-11, 22-31, 42,43
Y		12-21
X	WO 02/096128 A (PESSI PEKKA; ISOMAKI MARKUS (FI); KISS KRISZTIAN (FI); NOKIA CORP.) 28 November 2002 (2002-11-28) page 6 - page 7 figures 2-6  ----- -/--	1-10, 22-31, 42,43



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*Z\* document member of the same patent family

Date of the actual completion of the international search

19 August 2004

Date of mailing of the international search report

30.08.04

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

International Application No.

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/160776 A1 (TORABI MOHAMMAD) 31 October 2002 (2002-10-31) figure 2 paragraphs '0002! - '0004! paragraph '0009! paragraphs '0013! - '0021!	1-11, 28-31, 43
X	WO 02/43405 A (KAUPPINEN RISTO; NOKIA CORP (FI); PIKOLA JUHA (FI)) 30 May 2002 (2002-05-30) page 16, line 25 - page 20, line 26 figure 5	1-11, 43
Y	WO 02/087265 A (WESTMAN ILKKA; NOKIA CORP. (FI)) 31 October 2002 (2002-10-31) page 1 - page 4 page 7 - page 9	12-21
X	WO 02/082729 A (SAARI JARMO ILKKA; NOKIA CORP (FI); BAJKO GABOR (HU); BODOG GYULA) 17 October 2002 (2002-10-17) page 15, lines 20-26 page 20, lines 1-16 figures 6, 7	22, 23, 28-31
X	"Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); IP Multimedia Call Control Protocol based on SIP and SDP; Stage 3 (3GPP TS 24.229 version 5.3.0 Release 5); ETSI TS 124 229" ETSI STANDARDS, EUROPEAN TELECOMMUNICATIONS STANDARDS INSTITUTE, SOPHIA-ANTIPO, FR, vol. 3-CN1, no. V530, December 2002 (2002-12), XP014008075 ISSN: 0000-0001 pages 56-58	22, 23, 42
A		1-21, 24-31, 43
X	US 2002/110104 A1 (FOTI GEORGE ET AL) 15 August 2002 (2002-08-15) figure 2 paragraphs '0011!, '0021!, '0022!, '0034! paragraphs '0027! - '0031!	32-41
A	US 2002/027915 A1 (FOTI GEORGE ET AL) 7 March 2002 (2002-03-07) paragraphs '0005! - '0017!, '0021! paragraphs '0028! - '0051!	32-41
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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/154755 A1 (GOURRAUD CHRISTOPHE) 24 October 2002 (2002-10-24) figure 2 paragraphs '0007! - '0011! paragraphs '0025! - '0035! -----	44-57
X	WO 02/09365 A (MARTIN MARKUS ;WESTMAN ILKKA (FI); KAUPPINEN RISTO (FI); NOKIA COR) 31 January 2002 (2002-01-31) page 11, line 25 - page 25, line 22 -----	58-63
A	WO 02/098157 A (WESTMAN ILKKA ;NOKIA CORP (FI)) 5 December 2002 (2002-12-05) page 1 - page 3 pages 9-17 figure 9 -----	58-63

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-31,42,43

Claims 1-31, 42 and 43 are directed to the optimization of message routing in an IMS system. This is done by routing messages from an I-CSCF function directly to a network function, respectively from a network function to an I-CSCF function.

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2. claims: 32-41

Claims 32-41 are directed to message routing to a proxy. This is done by converting a message received in accordance with a first protocol to a second protocol, and routing the message to the proxy using a new message identification information obtained after querying a database.

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3. claims: 44-57

Claims 44-57 are directed to providing a network service to a subscriber. This is done by using a subscriber database.

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4. claims: 58-63

Claims 58-63 are directed to an optimized way of providing call session control. This is done by implementing a call session control function which provides also in a second functioning mode an outbound proxy function.

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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/IB2004/000546

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2004/000546

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2002147845	A1	10-10-2002	CA 2440121 A1 WO 02071674 A2 EP 1366590 A2	12-09-2002 12-09-2002 03-12-2003
WO 02096128	A	28-11-2002	BR 0208543 A CA 2442568 A1 EP 1389396 A1 WO 02096128 A2 WO 02087265 A2 US 2004088419 A1 US 2004109439 A1	23-03-2004 28-11-2002 18-02-2004 28-11-2002 31-10-2002 06-05-2004 10-06-2004
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